

May 17, 2021

Mohammed Abouzaid

Arnold's Conjecture and Morava K -theories

After a brief review of the Arnold's Conjecture, I will give an overview of the proof of the following joint result with Blumberg: for every closed symplectic manifold, the number of time-1 periodic orbits of a non-degenerate Hamiltonian is bounded below by the rank of the cohomology with coefficients in any field. The case of characteristic 0 was proved by Fukaya and Ono as well as Li and Tian. The new ingredient in our proof is the construction of generalized Floer cohomology groups with coefficients in Morava K -theory. This means that we have to use higher dimensional moduli spaces of pseudo-holomorphic curves, and extract “fundamental chains” in generalized homology.

SCIENTIFIC SEMINAR

“DIFFERENTIAL GEOMETRY AND APPLICATIONS”

headed by Academician of RAS Anatoly T. Fomenko

The seminar takes place online in ZOOM on Mondays
from 4:45 p.m. to 6:20 p.m. (Moscow time)

The zoom-ref is provided only to registered persons

To be registered, ask any participant of our seminar to endorse you
Announcements of previous talks can be found on the seminar website
<http://dfgm.math.msu.su/chairsem.php>